

SEQUENCE LISTING



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ZAHN, Ralph  
ALTAMIRANO, Myriam M.

<120> CHAPERONE FRAGMENTS

<130> 674508-2001

<140> 09/276,455

<141> 1999-03-25

<150> 97/02652

<151> 1997-09-26

<150> 96/020980

<151> 1996-12-03

<150> 9620243.7

<151> 1996-09-26

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<170> PatentIn Ver. 2.1

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<213> Escherichia coli

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30

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Gly Gly Gln Gln Met Gly Arg Asp Leu Tyr Asp Asp Asp Asp Leu Val

                    20                      25                      30

Pro Arg Gly Ser

                    35

<210> 9

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<212> PRT

<213> Escherichia coli

<400> 9

Glu Gly Met Gln Phe Asp Arg Gly Tyr Leu Ser Pro Tyr Phe Ile Asn

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Lys Pro Glu Thr Gly Ala Val Glu Leu Glu Ser Pro Phe Ile Leu Leu

                    20                      25                      30

Ala Asp Lys Lys Ile Ser Asn Ile Arg Glu Met Leu Pro Val Leu Glu

                    35                      40                      45

Ala Val Ala Lys Ala Gly Lys Pro Leu Leu Ile Ile Ala Glu Asp Val

                    50                      55                      60

Glu Gly Glu Ala Leu Ala Thr Leu Val Val Asn Thr Met Arg Gly Ile

65                      70                      75                      80

Val Lys Val Ala Ala Val Lys Ala Pro Gly Phe Gly Asp Arg Arg Lys

                    85                      90                      95

Ala Met Leu Gln Asp Ile Ala Thr Leu Thr Gly Gly Thr Val Ile Ser

                    100                      105                      110

Glu Glu Ile Gly Met Glu Leu Glu Lys Ala Thr Leu Glu Asp Leu Gly

                    115                      120                      125

Gln Ala Lys Arg Val Val Ile Asn Lys Asp Thr Thr Thr Ile Ile Asp

                    130                      135                      140

Gly Val Gly Glu Glu Ala Ala Ile Gln Gly Arg Val Ala Gln Ile Arg

145                      150                      155                      160

Gln Gln Ile Glu Glu Ala Thr Ser Asp Tyr Asp Arg Glu Lys Leu Gln

                    165                      170                      175

Glu Arg Val Ala Lys Leu Ala Gly Gly Val  
 180 185

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Leu Arg Gly Val Asn Val Leu Ala Asp Ala Val Lys Val Thr Leu Gly  
 20 25 30

Pro Lys Gly Arg Asn Val Val Leu Asp Lys Ser Phe Gly Ala Pro Thr  
 35 40 45

Ile Thr Lys Asp Gly Val Ser Val Ala Arg Glu Ile Glu Leu Glu Asp  
 50 55 60

Lys Phe Glu Asn Met Gly Ala Gln Met Val Lys Glu Val Ala Ser Lys  
 65 70 75 80

Ala Asn Asp Ala Ala Gly Asp Gly Thr Thr Thr Ala Thr Val Leu Ala  
 85 90 95

Gln Ala Ile Ile Thr Glu Gly Leu Lys Ala Val Ala Ala Gly Met Asn  
 100 105 110

Pro Met Asp Leu Lys Arg Gly Ile Asp Lys Ala Val Thr Ala Ala Val  
 115 120 125

Glu Glu Leu Lys Ala Leu Ser Val Pro Cys Ser Asp Ser Lys Ala Ile  
 130 135 140

Ala Gln Val Gly Thr Ile Ser Ala Asn Ser Asp Glu Thr Val Gly Lys  
 145 150 155 160

Leu Ile Ala Glu Ala Met Asp Lys Val Gly Lys Glu Gly Val Ile Thr  
 165 170 175

Val Glu Asp Gly Thr Gly Leu Gln Asp Glu Leu Asp Val Val Glu Gly  
 180 185 190

Met Gln Phe Asp Arg Gly Tyr Leu Ser Pro Tyr Phe Ile Asn Lys Pro  
 195 200 205

Glu Thr Gly Ala Val Glu Leu Glu Ser Pro Phe Ile Leu Leu Ala Asp  
 210 215 220

Lys Lys Ile Ser Asn Ile Arg Glu Met Leu Pro Val Leu Glu Ala Val  
 225 230 235 240

Ala Lys Ala Gly Lys Pro Leu Leu Ile Ile Ala Glu Asp Val Glu Gly  
 245 250 255

Glu Ala Leu Ala Thr Leu Val Val Asn Thr Met Arg Gly Ile Val Lys  
 260 265 270

Val Ala Ala Val Lys Ala Pro Gly Phe Gly Asp Arg Arg Lys Ala Met  
 275 280 285

Leu Gln Asp Ile Ala Thr Leu Thr Gly Gly Thr Val Ile Ser Glu Glu  
 290 295 300

Ile Gly Met Glu Leu Glu Lys Ala Thr Leu Glu Asp Leu Gly Gln Ala  
 305 310 315 320

Lys Arg Val Val Ile Asn Lys Asp Thr Thr Thr Ile Ile Asp Gly Val  
 325 330 335

Gly Glu Glu Ala Ala Ile Gln Gly Arg Val Ala Gln Ile Arg Gln Gln  
 340 345 350

Ile Glu Glu Ala Thr Ser Asp Tyr Asp Arg Glu Lys Leu Gln Glu Arg  
 355 360 365

Val Ala Lys Leu Ala Gly Gly Val Ala Val Ile Lys Val Gly Ala Ala  
 370 375 380

Thr Glu Val Glu Met Lys Glu Lys Lys Ala Arg Val Glu Asp Ala Leu  
 385 390 395 400

His Ala Thr Arg Ala Ala Val Glu Glu Gly Val Val Ala Gly Gly Gly  
 405 410 415

Val Ala Leu Ile Arg Val Ala Ser Lys Leu Ala Asp Leu Arg Gly Gln  
 420 425 430

Asn Glu Asp Gln Asn Val Gly Ile Lys Val Ala Leu Arg Ala Met Glu  
 435 440 445

Ala Pro Leu Arg Gln Ile Val Leu Asn Cys Gly Glu Glu Pro Ser Val  
 450 455 460

Val Ala Asn Thr Val Lys Gly Gly Asp Gly Asn Tyr Gly Tyr Asn Ala  
 465 470 475 480

Ala Thr Glu Glu Tyr Gly Asn Met Ile Asp Met Gly Ile Leu Asp Pro  
 485 490 495

Thr Lys Val Thr Arg Ser Ala Leu Gln Tyr Ala Ala Ser Val Ala Gly  
 500 505 510

Leu Met Ile Thr Thr Glu Cys Met Val Thr Asp Leu Pro Lys Asn Asp  
 515 520 525

Ala Ala Asp Leu Gly Ala Ala Gly Gly Met Gly Gly Met Gly Gly Met  
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Gly Gly Met Met  
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Asn Lys Pro Glu Thr Gly Ala Val Glu Leu Glu Ser Pro Phe Ile Leu  
 20 25 30

Leu Ala Asp Lys Lys Ile Ser Asn Ile Arg Glu Met Leu Pro Val Leu  
 35 40 45

Glu Ala Val Ala Lys Ala Gly Lys Pro Leu Leu Ile Ile Ala Glu Asp  
 50 55 60

Val Glu Gly Glu Ala Leu Ala Thr Leu Val Val Asn Thr Met Arg Gly  
 65 70 75 80

Ile Val Lys Val Ala Ala Val Lys Ala Pro Gly Phe Gly Asp Arg Arg  
 85 90 95

Lys Ala Met Leu Gln Asp Ile Ala Thr Leu Thr Gly Gly Thr Val Ile  
 100 105 110

Ser Glu Glu Ile Gly Met Glu Leu Glu Lys Ala Thr Leu Glu Asp Leu

115	120	125
Gly Gln Ala Lys Arg Val Val Ile Asn Lys Asp Thr Thr Thr Ile Ile		
130	135	140
Asp Gly Val Gly Glu Glu Ala Ala Ile Gln Gly Arg Val Ala Gln Ile		
145	150	155 160

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 Ala

<220>  
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 <223> Amino acid 5 is Ile, Leu, Val, Pro or Ala

<220>  
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 <222> (8)  
 <223> Amino acid 8 is Leu, Glu, Val, His or Ile

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 <222> (9)  
 <223> Amino acid 9 is Glu, Ala, Arg, Leu, Gln or Asn

<220>  
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 <222> (12)  
 <223> Amino acid 12 is Ala, Val, Ile, Met, Leu, Asn,  
 Ser, Arg, Thr, Gln or Lys

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 <223> Amino acid 28 is Glu, Asp or Gly

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<222> (31)  
<223> Amino acid 31 is Ala, Pro, Ser, Thr, Gly, or Leu

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<223> Amino acid 32 is Thr, Ala, Asn, Ser, or Val

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<223> Amino acid 36 is Asn, Ser, or Leu

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Gln, Asn, Lys, Phe or Pro

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1 5 10 15  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
20 25 30  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
35 40

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1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Glu Xaa Xaa Ala Thr  
20 25 30

Xaa Val Val Asn Xaa Xaa Arg Xaa Ile Val  
35 40

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<223> Amino acid 4 may also be Val

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<222> (6)

<223> Amino acid 6 may also be Ser

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<223> Amino acid 9 may also be Ile

<400> 14

Pro Leu Leu Ile Ile Ala Glu Asp Val Glu Gly Glu Ala Leu  
1 5 10